Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Original) An exhaust gas purifying system for an internal combustion engine, comprising:

an exhaust gas purifying catalyst disposed in an exhaust gas passage of the engine to remove an exhaust gas component;

a concentration sensor disposed in the exhaust gas passage downstream of the exhaust gas purifying catalyst to detect a concentration of the exhaust gas component; and

a control unit programmed to carry out

detecting an activity transition time at which the exhaust gas purifying catalyst changes from an inactive state to an active state, in accordance with the concentration of the exhaust gas component detected by the concentration sensor, and

judging a deterioration of the exhaust gas purifying catalyst at the activity transition time.

2. (Original) An exhaust gas purifying system as claimed in Claim 1, wherein the control unit is programmed to carry out the deterioration judging only immediately after a starting of the engine and during a warming-up transition time period in which the engine changes from a cold condition to a warmed-up condition.

3. (Currently Amended) An exhaust [[as]] gas purifying system as claimed in Claim 1, wherein the control unit is programmed to carry out the activity transition time detecting in response to a time at which the concentration of the exhaust gas component changes from a state higher than a judgment concentration to a state lower than the judgment concentration.

4. (Original) An exhaust gas purifying system as claimed in Claim 1, wherein the control unit is programmed to carry out the deterioration judging in response to a condition in which a temperature of the exhaust gas purifying catalyst is higher than a judgment temperature at the activity transition time.

5. (Original) An exhaust gas purifying system as claimed in Claim 1, wherein the control unit is programmed to carry out the deterioration judging in response to a condition in which a lapsed time of from a time of starting of the engine to the activity transition time is longer than a judgment time.

6. (Original) An exhaust gas purifying system as claimed in Claim 1, wherein the exhaust gas purifying catalyst is a NOx trap catalyst of a type wherein NOx is adsorbed in an oxidation atmosphere and released in a reduction atmosphere, wherein the concentration sensor is a NOx sensor for detecting a concentration of NOx.

7. (Original) An exhaust gas purifying system for an internal combustion engine, comprising:

an exhaust gas purifying catalyst disposed in an exhaust gas passage of the engine to remove an exhaust gas component, the exhaust gas purifying catalyst being a NOx trap catalyst of a type wherein NOx is adsorbed in an oxidation atmosphere and released in a reduction atmosphere;

a concentration sensor disposed in the exhaust gas passage downstream of the exhaust gas purifying catalyst to detect a concentration of the exhaust gas component, the concentration sensor being a NOx sensor for detecting a concentration of NOx; and

a control unit programmed to carry out

detecting an activity transition time at which the exhaust gas purifying catalyst changes from an inactive state to an active state, in accordance with the concentration of the exhaust gas component detected by the concentration sensor, and

judging a deterioration of the exhaust gas purifying catalyst at the activity transition time,

accomplishing a compulsory sulfur poisoning releasing processing for the NOx trap catalyst after an initial judgment of the deterioration of the NOx trap catalyst,

judging as to whether the NOx trap catalyst is subjected to a sulfur poisoning after a second judgment of the deterioration of the NOx trap catalyst and after the sulfur poisoning releasing processing, and

generating a warning when the NOx trap catalyst is judged not to be subjected to the sulfur poisoning.

8. (Original) An exhaust gas purifying system for an internal combustion engine, comprising:

an exhaust gas purifying catalyst disposed in an exhaust gas passage of the engine to remove an exhaust gas component;

means for detecting a concentration of the exhaust gas component in the exhaust gas passage downstream of the exhaust gas purifying catalyst;

means for detecting an activity transition time at which the exhaust gas purifying catalyst changes from an inactive state to an active state, in accordance with the concentration of the exhaust gas component detected by the concentration detecting means; and

means for judging a deterioration of the exhaust gas purifying catalyst at the activity transition time.

9. (Original) A method of purifying exhaust gas discharged from an internal combustion engine provided with an exhaust gas purifying catalyst disposed in an exhaust gas passage of the engine to remove an exhaust gas component, the exhaust gas purifying method comprising:

detecting a concentration of the exhaust gas component in the exhaust gas passage downstream of the exhaust gas purifying catalyst;

detecting an activity transition time at which the exhaust gas purifying catalyst changes from an inactive state to an active state, in accordance with the detected concentration of the exhaust gas component; and

judging a deterioration of the exhaust gas purifying catalyst at the activity transition time.